Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Wild Eagle Mountain Ranch LLC, 576B Duck Creek Road, Springdale, MT 59082

2. Type of action: Application to Change an Existing Irrigation Water Right 43B 30107064

3. Water source name: Yellowstone River

4. Location affected by project: Sections 14 and 15 T1S R12E

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to install a 122.8 acre part circle center pivot sprinkler system. Water would be diverted by a pump from the Yellowstone River. The center pivot sprinkler would irrigate currently agricultural property. The place of use includes acres previously irrigated under two different water rights and adds some acres not previously irrigated. The purpose of the project and the benefits are an increase in agricultural production for the Applicant. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Natural Heritage Program
Montana Sage Grouse Habitat Conservation Program
United States Fish and Wildlife Service
United State Natural Resource Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **–** The Montana Department of Fish, Wildlife and Parks lists the Yellowstone River as periodically dewatered in the reach between Springdale and the Bighorn River. The proposed use decreases the diverted and consumed volumes of water from the river relative to the historic practices and would likely have a positive effect on periodic dewatering.

Determination: Possible positive impact

Water quality **–** The Yellowstone River in the area of the proposed project is classified by the Montana Department of Environmental Quality as B1 indicating that it is suitable for all uses after conventional treatment. The water quality category is 4C meaning that identified threats to water quality are a result of dewatering or habitat modification and no TMDL is required. The river does not fully support aquatic life. The proposed project is a change to more efficient irrigation and would decrease the potential for water quality degradation by return flows or runoff. Less water would be withdrawn from the river mitigating dewatering concerns and no alteration of existing habitat is proposed.

Determination: Possible positive impact

Groundwater **–** The change to more efficient sprinkler irrigation may decrease infiltration from the irrigation and reduce groundwater quantity. The total change in infiltration volume is likely to be small because the proposed diverted volume is small.

Determination: No significant impact

DIVERSION WORKS – No change is proposed to diversion means or operation. No channel impacts, flow modifications, barriers or removal of riparian vegetation is proposed. No dams or wells are included in the project.

Determination: No impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species **–** According to the Montana Natural Heritage Program, there are no plant species of concern in the project area. There a four animal species of concern including the Bald Eagle, Great Blue Heron, Yellowstone Cutthroat Trout and Alberta Snowfly. No change to habitat necessary for these species is proposed. The sprinkler system will not create a barrier to fish or flying animals. The project area is within general sage grouse habitat as mapped by the Montana Sage Grouse Habitat Conservation Program. Carolyn Sime in a letter dated July 25, 2016, concluded that the proposed activity was consistent with the Montana Sage Grouse Conservation Strategy.

Determination: No significant impact

Wetlands **–** There are no wetlands within the project area and no wetlands are proposed.

Determination: No impact

Ponds **–** There are no ponds within the project area and no ponds are proposed.

Determination: No impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil type in the project area is Absher clay with low slopes. This is a well-drained soil that is moderately to strongly saline. Use of a center pivot sprinkler with pipeline conveyance will not affect soil quality or stability. The high salinity of the soils could potentially result in saline seep; however, use of the most efficient irrigation method will minimize that possibility.

Determination: Possible impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The current vegetation in the area is agricultural either irrigated crop land or grazing. The addition of a sprinkler system will not substantially alter the vegetative cover. There is the potential to spread noxious weeds during the installation of the sprinkler. It will be the responsibility of the landowner to monitor and prevent the establishment and spread of noxious weeds.

Determination: No significant impact

AIR QUALITY – Sprinkler irrigation of agricultural land has no potential to alter air quality.

Determination: No impact

HISTORICAL AND ARCHEOLOGICAL SITES – The project area is not on State or Federal Lands.

Determination: Not applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – The only additional demand on environmental resources not already addressed is the need for energy to operate the center pivot sprinkler.

Determination: No significant impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: No impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – There are no nearby wilderness areas and no access roads cross the project area. The project is located along the banks of the Yellowstone River but is set back from the riparian areas and will not limit fisherman access to the river.

Determination: No significant impact

HUMAN HEALTH - Sprinkler irrigation of agricultural land has no potential to negatively affect human health.

Determination: No impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No__**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? No significant impact

(*b) Local and state tax base and tax revenues?* No significant impact

(c) Existing land uses? No significant impact

(*d) Quantity and distribution of employment?* No significant impact

(e) Distribution and density of population and housing? No significant impact

(f) Demands for government services? No significant impact

(g) Industrial and commercial activity? No significant impact

(h) Utilities? No significant impact

(i) Transportation? No significant impact

(j) Safety? No significant impact

(k) Other appropriate social and economic circumstances? No significant impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized.

Cumulative Impacts: No cumulative impacts are recognized

3. *Describe any mitigation/stipulation measures:* None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only alternative to the proposed project is the no-action alternative. The no-action alternative prevents the land owner from improving efficiency and production on agricultural land. The no-action alternative has no significant environmental advantages over the proposed project.

PART III. Conclusion

1. ***Preferred Alternative***: Issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

2 ***Comments and Responses:*** None

3. ***Finding:***
*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: No significant environmental impacts associated with the proposed project were recognized and the increased efficiency of the irrigation system may have positive environmental effects. For these reasons, an environmental assessment is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison
Title: Hydrologist
Date: 12/15/2016